

In the Claims:

Listed below are clean copies of the amended claims. Marked-up copies of the amended claims are provided as an attachment to this document.

1. (amended) A method for detecting a tracking short in an electric circuit comprising :
measuring a current value during a predetermined period to obtain a frequency distribution of an
absolute value of a variation of the current value;
comparing a rate of the frequency in the predetermined variation range over a total frequency
with a reference value;

and judging the tracking short to have occurred when the rate is above the reference value.

2. (amended) A method for detecting a tracking short in an electric circuit comprising:
measuring an absolute value of the current value at each unit time to obtain a current waveform
which is used for judgment wherein the unit time is what is obtained by dividing a
predetermined period into several divided time units;

calculating a variation of the current value at each unit time comprising getting the difference
between an absolute value at each unit time and an absolute value at an adjacent unit
time,

and judging tracking short to have occurred when a frequency of the variation in a
predetermined range for the predetermined period satisfies a pre-set reference.

3. (amended) A method for detecting a tracking short according to claim 2,
wherein there exist a plurality of said variation ranges, and said reference of frequency is set
respectively for each of said plurality of ranges,

and wherein the said step of judging is judging the tracking short to have occurred when each
frequency in all the ranges satisfies the corresponding reference.

4. (amended) A method for detecting tracking short according to claim 2, wherein the judgment is performed at every unit time for the predetermined period.

5. (amended) A method for detecting tracking short according to claim 2, further comprising dividing the unit time into several divided time units, obtaining an absolute value of a peak value of current in each said divided time unit, calculating a difference between said value and the previous or next value of it, and initializing and restarting the said judgment when the absolute value of said difference is below the predetermined reference value.

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(continued)
[Please add the following claims.]

6. A method for detecting tracking short according to claim 3, wherein the judgment is performed at every unit time for the predetermined period.

7. A method for detecting tracking short according to claim 3, further comprising dividing the unit time into several divided time units, obtaining an absolute value of a peak value of current in each said divided time unit, calculating a difference between said value and the previous or next value of it, and initializing and restarting the said judgment when the absolute value of said difference is below the predetermined reference value.

8. A method for detecting tracking short according to claim 4, further comprising dividing the unit time into several divide time units, obtaining an absolute value of a peak value of current in each said divided time unit, calculating a difference between said value and the previous or next value of it, and initializing and restarting the said judgment when the absolute value of said difference is below the predetermined reference value.

9. A method for detecting tracking short according to claim 6, further comprising dividing the unit time into several divided time units, obtaining an absolute value of a peak value of current in each said divided time unit, calculating a difference between said value and the previous or next value of it, and initializing and restarting the said judgment when the absolute value of said difference is below the predetermined reference value.

10. A method for detecting a tracking short in an electric circuit comprising:
measuring an absolute value of the current value at each unit time to obtain a current waveform which is used for judgment wherein the unit time is what is obtained by dividing a predetermined period into several divided unit times;
calculating a variation of the current value at each unit time;
and judging tracking short to have occurred when a frequency of the variation in a predetermined range for the predetermined period satisfies a pre-set reference;
wherein the judgment is performed at every unit time for the predetermined period.

11. A method for detecting tracking short according to claim 10, wherein calculating a variation of the current value at each unit time comprises getting the difference between an absolute value at each unit time and an absolute value at an adjacent unit time;

12. A method for detecting a tracking short according to claim 10, wherein there exist a plurality of said variation ranges, and said reference of frequency is set respectively for each of said plurality of ranges;
and wherein the said step of judging is judging the tracking short to have occurred when each frequency in all the ranges satisfies the corresponding reference

13. A method for detecting tracking short according to claim 10,

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further comprising dividing the unit time into several divided time units, obtaining an absolute value of a peak value of current in each said divided time unit, calculating a difference between said value and the previous or next value of it, and initializing and restarting the said judgment when the absolute value of said difference is below the predetermined reference value.

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(concluded)
14. A method for detecting a tracking short according to claim 11,
wherein there exist a plurality of said variation ranges, and said reference of frequency is set
repectively for each of said plurality of ranges;
and wherein the said step of judging is judging the tracking short to have occurred when each
frequency in all the ranges satisfies the corresponding reference

15. A method for detecting tracking short according to claim 11,
further comprising dividing the unit time into several divided time units, obtaining an absolute
value of a peak value of current in each said divided time unit, calculating a difference between
said value and the previous or next value of it, and initializing and restarting the said judgment
when the absolute value of said difference is below the predetermined reference value.

In the Abstract:

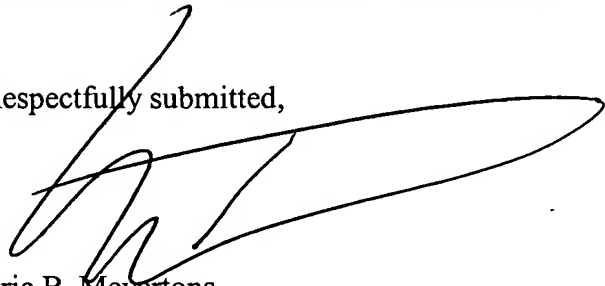
✓ Please replace the abstract with the enclosed substitute sheet. Applicant has also
submitted herewith a strikethrough version of the abstract indicating the amendments.

It is believed that no fees are due in connection with the filing of this Preliminary
Amendment. However, if any fees are due, the Assistant Commissioner is hereby authorized to

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deduct said fees from Conley, Rose & Tayon Deposit Account No. 50-1505/5333-02800/EBM.

Respectfully submitted,



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Date: 3/29/02